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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,195	08/21/2006	Bernhard Lettmann	PAT-01164/BCI-0078	1062
77224	7590	01/27/2010		
Mary E. Golota Cantor Colburn LLP 201 W. Big Beaver Road Suite 1101 Troy, MI 48084			EXAMINER SALVITTI, MICHAEL A	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			01/27/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/598,195

Applicant(s)

LETTMANN ET AL.

Examiner

MICHAEL A. SALVITTI

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,12-18 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,12-18 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 26th, 2009 has been entered.

Claim Objections

Claims 12 and 13-18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claim 12: Claim 12 is drawn to an intended use without setting forth further steps of limiting the parent claim 5, which is drawn to a process of preparing an oil-in-water composition.

Regarding claims 13-18: Claim 18 is drawn to a process for coating using the composition of claim 1. In doing so, claim 1, being directed to a composition of matter, is not further limited. For the purposes of further examination, claim 18 will be interpreted as being an independent claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4: Claim 4 is rejected for dependency on a cancelled claim. For the purposes of further examination, claim 4 will be given the interpretation of being dependent on claim 5, which is also directed to a process.

Regarding claim 17: Claim 17 recites the limitation "coating material, adhesive or sealant" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. Claim 18 does not recite any of these components. For the purposes of further examination, these will be interpreted to be the "substrate" of claim 18.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,313,218 to *Fiori et al.* in view of U.S. Patent No. 6,005,045 to *Klanica*.

Regarding claims 1, 21 and 22: *Fiori* teaches a multicomponent system curable thermally (*Fiori* col. 11, lines 29-35). This composition comprises:

(I) at least one water-in-oil dispersion comprising water and at least one water-soluble polymeric binder (A) (the polymerization product of butyl acrylate, 2-hydroxyethyl acrylate, methyl methacrylate and acrylic acid; col. 11, lines 45-55). This binder is in an organic solvent (2-heptanone, 98%; col. 11, line 46). This binder contains at least two isocyanate-reactive functional groups, as evidenced by the incorporation of 2-hydroxyethyl acrylate and acrylic acid into the polymer.

(II) at least one water free liquid component comprising at least one polyisocyanate is present (CYTHANE® 3174, an aliphatic polyisocyanate resin in butyl acetate; *Fiori* col. 18, line 38).

(III) an aqueous binder composition is generated by mixing component I with water (*Fiori* col. 18, lines 40-45).

Fiori is silent regarding a second binder component, wherein one binder (A) is different than the other binder. *Klanica* teaches a composition comprising two curable binders (Table Example 2, col. 8, lines 50-68). Both binders comprise hydroxyethyl methacrylate (col. 7, lines 1-42), and are thereby water dispersible methacrylate copolymers. *Fiori* and *Klanica* are analogous art in that they are drawn to the same field of endeavor, namely aqueous compositions comprising an isocyanate-reactive binder and a polyisocyanate. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to add a second binder to the composition of *Fiori*, with the motivation of improving the Tukon Hardnes and resistance to gasoline (the

table in col. 10-11 shows that the 2-binder system has the best hardness and second-best gasoline resistance compared to the single binder system).

Regarding claim 2: The water-in-oil dispersion (I) has a water content of less than 40% by weight, as the reaction is in an organic solvent (98% 2-Heptanone; col. 11, line 46).

Claims 5-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,313,218 to *Fiori et al.* in view of U.S. Patent No. 6,005,045 to *Klanica*.

Regarding claim 5: *Fiori* teaches a process for preparing a multicomponent system curable thermally (*Fiori* col. 11, lines 29-35). This process comprises:

(I') at least one water-in-oil dispersion comprising water and at least one water-soluble polymeric binder (A) (the polymerization product of butyl acrylate, 2-hydroxyethyl acrylate, methyl methacrylate and acrylic acid; col. 11, lines 45-55). This binder is in an organic solvent (2-heptanone, 98%; col. 11, line 46). This binder contains at least two isocyanate-reactive functional groups, as evidenced by the incorporation of 2-hydroxyethyl acrylate and acrylic acid into the polymer.

(II) at least one water free liquid component comprising at least one polyisocyanate is present (CYTHANE® 3174, an aliphatic polyisocyanate resin in butyl acetate; *Fiori* col. 18, line 38).

(III) an aqueous binder composition is generated by mixing component I with water (*Fiori* col. 18, lines 40-45).

As to the steps in the process, *Fiori* teaches (2) mixing the water-in-oil dispersion (I) with component (II); and (3) mixing the mixture with water (*Fiori* col. 18, lines 30-48).

Fiori is silent regarding a second binder component, wherein one binder (A) is different than the other binder. *Klanica* teaches a composition comprising two curable binders (Table Example 2, col. 8, lines 50-68). Both binders comprise hydroxyethyl methacrylate (col. 7, lines 1-42), and are thereby water dispersible methacrylate copolymers. *Fiori* and *Klanica* are analogous art in that they are drawn to the same field of endeavor, namely aqueous compositions comprising an isocyanate-reactive binder and a polyisocyanate. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to add a second binder to the composition of *Fiori*, with the motivation of improving the Tukon Hardnes and resistance to gasoline (the table in col. 10-11 shows that the 2-binder system has the best hardness and second-best gasoline resistance compared to the single binder system).

Fiori is silent regarding the procedure of mixing the water-free binder (component I') with the aqueous binder composition, as set forth by step (1) of instant claim 5. However the resulting process generates the same composition regardless of when water is added. However, *Fiori* recognizes other orders of mixing (col. 9, line 64 through col. 10, line 16. Selection of any order of mixing ingredients is evidence of *prima facie* obviousness. See MPEP § 2144.04: *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) and *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). At the time of the invention, it would have been obvious to a person having ordinary skill in the

art to optimize the order of addition, with the motivation of controlling the viscosity throughout the mixing process (*Fiori* col. 10, lines 25-38).

Regarding claims 6-7: *Fiori* teaches a 39.4% water-in-oil dispersion (10.4 grams of water in 26.6 total composition; col. 18, lines 20-48). An emulsion is a dispersion.

Regarding claims 4, 8 and 9: *Fiori* teaches stirring the mixture of claim 5 (col. 18, line 43). *Fiori* does not specify whether this occurs manually. MPEP §2144.04 (III) states that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art. The Office is of the position that the converse holds true. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to manually mix the compound of claim 5, with the motivation being able to closely monitor and control the resulting product.

Regarding claim 12: *Fiori* teaches the process wherein the composition is a coating (col. 18, lines 59-68).

Claims 18 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,313,218 to *Fiori et al.* in view of U.S. Patent No. 6,005,045 to *Klanica*.

Regarding claims 18 and 13: *Fiori* teaches a method of coating a substrate comprising mixing components I-II of the system from claim 1 (*Fiori* col. 18, lines 30-48), and applying the composition to a substrate (steel panels) followed by curing thermally

(col. 18, lines 58-68). This coating is described as a clearcoat (*Fiori* col. 11, line 9), since no pigment is present.

Fiori is silent regarding a second binder component, wherein one binder (A) is different than the other binder. *Klanica* teaches a composition comprising two curable binders (Table Example 2, col. 8, lines 50-68). At the time of the invention, it would have been obvious to a person having ordinary skill in the art to add a second binder (component III) to the composition of *Fiori*, with the motivation of improving the Tukon Hardnes and resistance to gasoline (the table in col. 10-11 shows that the 2-binder system has the best hardness and second-best gasoline resistance compared to the single binder system).

Regarding claims 14-17: *Fiori* teaches the method of coating a substrate, as set in claim 18 above.

Fiori is silent regarding a method wherein a method wherein a means of transport selected from the group consisting of automobiles, trucks, buses, bicycles, rail vehicles, watercraft, aircraft, parts thereof and constructions and parts thereof are coated. However, its primary use is stated to be automotive refinishing applications (*Fiori* col. 11, lines 1-10). An automobile has been given the broadest reasonable interpretation as an article of everyday use, with respect to instant claim 17. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to coat an automobile (*Fiori* col. 11, lines 1-10), with the motivation of providing a clear, hydrophobic coating (*Fiori* col. 19-20 Tables) exhibiting low volatile organic content (col. 3, lines 15-20), since VOCs are undesirable (col. 1, lines 25-46).

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Response to Arguments

Applicant's arguments filed June 26, 2009 have been fully considered but they are not persuasive, because:

A) In response to the applicants' arguments of anticipation by *Fiori* under 35 U.S.C. §102(b) (section 3 of the arguments, pages 8-9):

The applicant argues that because *Fiori* does not recite a mixture of components (I), (II) and (III), claims 1-2 and 13-18 are not anticipated. *Fiori* explicitly teaches a multicomponent system containing the equivalents of (I) col. 11, lines 45-55) and (II) (col. 18, line 38). The equivalent composition of (III) in *Fiori* is obtained *in situ* by mixing component I with water (col. 18, lines 40-45). The resulting mixture taught by *Fiori*, after addition of water, has the same final composition as the instant claimed invention. The subject matter of claims 1-2 are drawn to a composition (which is taught by *Fiori*), and claims 13-18 are drawn to methods of using the composition which depend upon claim 1; these claims have been examined as a having identical composition as the resultant diluted composition of *Fiori*. Evidence to show differences between the prior art and the claimed invention has not been made of record.

B) In response to the applicants' arguments of obviousness by *Fiori* under 35 U.S.C. §103(a) (section 4 of the arguments, pages 9-10) are moot in view of the new grounds of rejection. *Klanica* shows the advantage of adding a second binder component to the composition.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. SALVITTI whose telephone number is (571)270-7341. The examiner can normally be reached on Monday-Thursday 8AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 1796

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Examiner, Art Unit 1796